

Claims

1. A composition for forming a fabric by spraying onto a supporting surface, the composition comprising fibres, a binder and a diluent.
2. A composition according to claim 1, wherein the binder is a polymer.
3. A composition according to claim 1 or 2, wherein the binder has a glass transition temperature (T_g) of at least 15°C, preferably at least 20°C, more preferably at least 30°C.
4. A composition according to claim 3, wherein the binder has a glass transition temperature of not more than 200°C, preferably not more than 150°C and more preferably not more than 100°C.
5. A composition according to any preceding claim, wherein the binder has a molecular weight of from 15 000 to 200 000, preferably from 50 000 to 150 000.
6. A composition according to any preceding claim, wherein the binder is selected from poly vinylacetate, poly vinylbutyrate, natural latex, and polyvinylalcohol.
7. A composition according to any preceding claim, wherein at least 80% of the fibres have a length of at least 0.02mm.
8. A composition according to any preceding claim, wherein at least 80% of the fibres have a length not more than 10mm, preferably not more than 5mm, more preferably not more than 1mm, still more preferably not more than 0.5mm, even more preferably not more than 0.25mm, most preferably not more than 0.15mm.
9. A composition according to any preceding claim, wherein substantially all the fibres have a length in the range 0.02 to 0.15mm.
10. A composition according to any preceding claim, wherein the fibres comprise at least 40%, preferably at least 60%, more preferably at least 80%, most preferably at least 90% polymeric fibres.

11. A composition according to any preceding claim, wherein the ratio of fibres : binder is in the range 5 : 1 to 1 : 5, preferably 3 : 1 to 1 : 3, more preferably 2 : 1 to 1 : 2, most preferably 1.5 : 1 to 1 : 1.5.
- 5 12. A composition according to any preceding claim, wherein the diluent is selected from water, C 1 to 12 alcohols, ketones or esters, preferably C 1 to 6 alcohols, ketones or esters.
- 10 13. A composition according to any preceding claim, wherein the diluent is selected from methanol, ethanol, butanol, acetone, ethyl acetate and water.
14. A composition according to any preceding claim, wherein the diluent is non-toxic.
- 15 15. A composition according to any preceding claim, wherein the composition additionally comprises at least one agent selected from adhesive, dye, physiologically active ingredient, fragrance, powder, oil, emulsifying agent and propellant.
- 20 16. A composition according to any preceding claim, wherein the composition has a viscosity in the range 10 mPas to 10 Pas, preferably in the range 100 mPas to 1 Pas.
- 25 17. An apparatus comprising a container containing the composition according to any preceding claim and a device capable of producing a spray of the composition from the container.
18. An apparatus according to claim 17, wherein the device capable of producing a spray has nozzle with diameter of 0.05 to 2mm, preferably 0.1 to 1 mm.
- 30 19. A non-woven fabric produced by spraying a composition according to any of claims 1 to 16, wherein the fabric comprises a solid binder and fibres bound by the binder.
20. A fabric according to claim 19, wherein the fibres lie substantially in parallel with the plane of the fabric.
- 35 21. A fabric according to claim 19 or 20, wherein the fibres in the fabric are conjugated and are longer than the fibres in the composition.

22. A fabric according to claim 21, wherein the conjugated fibres are at least 1mm, preferably at least 2mm, more preferably at least 5mm, still more preferably at least 10mm, even more preferably at least 20 mm, yet more preferably about 50 mm in length.

23. An article comprising a non-woven fabric according to any one of claims 19 to 22.

24. An article according to claim 23, wherein the article is selected from a piece of clothing, furniture or millinery item.

25. A method for producing a non-woven fabric comprising
a) placing a composition according to any of claims 1 to 16 in a container device capable of producing a spray, and

b) spraying the composition from a spray point on the device onto a supporting surface wherein substantially all of the diluent evaporates before the composition reaches the supporting surface thereby forming a non-woven fabric on the supporting surface.

26. A method according to claim 25, wherein the device capable of producing a spray has nozzle with internal diameter of 0.05 to 2 mm, preferably 0.1 to 1 mm.

27. A method according to claim 25 or 26, wherein conjugated fibres form during step b) so that the average length of fibres in the formed non-woven fabric is greater than the average length of fibres in the sprayed composition.

28. A method according to any of claims 25 to 27, wherein the spray formed in step b) is a fine spray with droplet size of less than 1 mm.

29. A method according to any of claims 25 to 28, wherein the distance between the spray point and the supporting surface is greater than 10 cm, preferably greater than 30 cm.

30. A method according to any of claims 25 to 29, wherein the non-woven fabric is easily separated from the supporting surface.